APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,259	01/02/2002	Anna Charny	CISCP731	7467

			EXAMINER
26541	7590	09/14/2006	SERRAO, RANODHI N

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ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 09/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/038,259	CHARNY ET AL.
	Examiner	Art Unit	
	Ranodhi Serrao	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9,11,12,14-16,18-22,24,25 and 27-31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-9,11,12,14-16,18-22,24,25 and 27-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 25 July

2006 has been entered.

Response to Arguments

2.   Applicant's arguments regarding claims 1, 12, 16, and 25 have been fully

considered but they are not persuasive.

3.   The applicant argued that the cited references, particularly Kodialam et al., fail to

teach the limitations set forth in claims 1, 12, 16, and 25. However, a more thorough

examination has revealed that Kinoshita et al. contains all of the limitations of these

claims. In ¶ 163, Kinoshita et al. states, "The resource control section 64 indexes the

bandwidth/delay management table 100 of FIG. 32 to check if the bandwidth

requirement can be satisfied... In this case, since the unused bandwidth is 9240 Mbit/s

in comparison with the required bandwidth of 10 Mbit/s, the bandwidth check is OK."

Therefore Kinoshita et al. teaches the invention as claimed.

4.   Applicant's arguments with respect to claims 8, 15, 21, and 30 have been

considered but are moot in view of the new ground(s) of rejection.

5.   The applicant argued in substance the newly added limitations of claims 8, 15,

21, and 30. However, the new grounds teach these and the added features. See

rejections below.

Claim Rejections - 35 USC § 102

6.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

7.   Claims 1, 4, 5, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by

Kinoshita et al. (2002/0172149).

8.   As per claim 1, Kinoshita et al. teaches in a data communication network, a

method for protecting a node, said method comprising processes of: identifying a node

to be protected (¶ 2); providing a backup bandwidth pool on links of said data

communication network (¶ 73); identifying a link pair traversing said node to be

protected, said link pair having a bandwidth to be protected (¶ 67); establishing as a

backup for said link pair a set of one or more backup paths that do not include said

node (¶ 73) and wherein said one or more backup paths collectively have backup

bandwidth greater than or equal to said bandwidth to be protected (¶12); deducting, for

each link included in said set of paths, from backup bandwidth available for protecting

said node, while not deducting from backup bandwidth available for protecting other

nodes in said data communication network (¶ 116); and repeating said processes of

identifying, establishing, and deducting for a plurality of link pairs traversing said node

without exceeding available backup bandwidth of links used in establishing said

backups (¶ 126); wherein said bandwidth to be protected of said link pair comprises a

lesser of primary bandwidths of links of said link pair traversing said node to be

protected (¶ 163).

9.   As per claim 4, Kinoshita et al. teaches a method wherein said set of one or more

paths comprises one or more label switched paths (¶ 156).

10.   As per claim 5, Kinoshita et al. teaches a method wherein said processes of

identifying and establishing occur under control of said node (¶ 24).

11.   As per claim 7, Kinoshita et al. and Kodialam et al. teach a method further

comprising: signaling said backups to other nodes adjacent to said node in said data

communication network (see Kinoshita et al., ¶ 68).

Claim Rejections - 35 USC § 103

12.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

13.   Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kinoshita et al. as applied to claim 1 above, and further in view of Kodialam et al.

(2002/0067693).

14.   As per claim 3, Kinoshita et al. teaches the mentioned limitations of claim 1

above but fails to teach a method wherein said bandwidth to be protected of said link

pair comprises a total bandwidth of LSPs employing said link pair. However, Kodialam

et al. teaches a method wherein said bandwidth to be protected of said link pair

comprises a total bandwidth of LSPs employing said link pair (see Kodialam et al., ¶

32). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Kinoshita et al. to a method wherein said bandwidth to be protected of said link pair comprises a total bandwidth of LSPs employing said link pair in order to guarantee minimum bandwidth for the path of a packet flow through the network (see Kodialam et al., ¶ 8).

15.   As per claim 6, Kinoshita et al. teaches the mentioned limitations of claim 1 above but fails to teach a method wherein said processes of identifying and establishing occur under control of a computer independent of said node. However, Kodialam et al. teaches a method wherein said processes of identifying and establishing occur under control of a computer independent of said node (see Kodialam et al., ¶ 73). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Kinoshita et al. to a method wherein said processes of identifying and establishing occur under control of a computer independent of said node in order to route data through a network having a plurality of nodes interconnected by a plurality of links represented by a graph (see Kodialam et al., ¶ 15).

16.   Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita et al. and Qiao et al. (2003/0009582).

17.   As per claim 8, Kinoshita et al. teaches a method for operating a data communication network to provide protection to nodes in said data communication network, said method comprising: maintaining, for each of a plurality of links in said data communication network, a primary bandwidth pool and a backup bandwidth pool (see

Kinoshita et al., ¶ 73); and establishing backup tunnels to protect a plurality of nodes of

said network (see Kinoshita et al., ¶ 156), each of said backup tunnels consuming

backup bandwidth from backup bandwidth pools of selected ones of said plurality of

links (see Kinoshita et al., ¶ 12); and wherein all backup tunnels protecting any

particular node of said network do not consume more bandwidth on any link than

provided by the link's backup bandwidth pool (see Kinoshita et al., ¶ 116) but wherein

there is at least one set of backup tunnels that protect disparate nodes and that

consume more bandwidth on at least one link than provided by said at least one link's

backup bandwidth pool (see Kinoshita et al., ¶186). But fails to teach wherein

establishing backup tunnels comprises signaling said backup tunnels with zero

bandwidth to adjacent nodes of each protected node. However, Qiao et al. teaches

wherein establishing backup tunnels comprises signaling said backup tunnels with zero

bandwidth to adjacent nodes of each protected node (see Qiao et al., ¶ 62). It would

have been obvious to one having ordinary skill in the art at the time of the invention to

modify Kinoshita et al. to wherein establishing backup tunnels comprises signaling said

backup tunnels with zero bandwidth to adjacent nodes of each protected node in order

to address the handling of connection release requests (specifically, de-allocate

bandwidth reserved for backup paths) especially under distributed control and with

partial information (see Qiao et al., ¶ 76).

18.   As per claim 9, Kinoshita et al. and Qiao et al. teach a method wherein at least

one of said backup tunnels comprises a label switched path (see Kinoshita et al., ¶

156).

19.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Qiao et

al. and Kinoshita et al. as applied to claim 8 above, and further in view of Kodialam et al.

Kinoshita et al. and Qiao et al. teach the mentioned limitations of claim 8 above but fail

to teach a method wherein establishing backup tunnels comprises: performing backup

tunnel selection computations at each protected node for that protected node. However,

Kodialam et al. teaches a method wherein establishing backup tunnels comprises:

performing backup tunnel selection computations at each protected node for that

protected node (see Kodialam et al. ¶ 28). It would have been obvious to one having

ordinary skill in the art at the time of the invention to modify Qiao et al. and Kinoshita et

al. to a method wherein establishing backup tunnels comprises: performing backup

tunnel selection computations at each protected node for that protected node in order to

reserve link bandwidth and establish an NTP (see Kodialam et al., ¶ 8).

20.   Claims 12, 14-16, 18-22, 24-25, and 27-31 have similar limitations as to claims 1,

3-9, and 11 above, therefore, they are being rejected under the same rationale.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ranodhi Serrao whose telephone number is (571) 272-

7967. The examiner can normally be reached on 8:00-4:30pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER